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State-Specific Variation in Rates of Twin Births — United States, 1992–1994

During 1980–1994, the number of twin births in the United States increased by 42%, from 68,339 to 97,064, and the twin birth rate (i.e., the number of twin births to total live births) increased 30%, from 18.9 to 24.6 per 1000 live births. These increases are important because the risks for preterm birth, low birthweight (LBW), long-term disability, and early death are greater for twins than for singletons (*1*; CDC, unpublished data, 1991). To estimate state-specific rates of twin births, CDC analyzed data from the U.S. certificates of birth for 1992–1994. This report presents the findings of this analysis of these data, which indicate that state-specific rates of twin births varied substantially, and the variations reflect factors other than state-specific differences in maternal age distributions.

In this analysis, twin births were defined as individual live births in twin deliveries, rather than sets of twins (e.g., a delivery resulting in one live birth and one stillbirth is reported as one birth from a twin delivery). Because the type of twin (i.e., monozygotic [resulting from the fertilization of one ovum] or dizygotic [resulting from the fertilization of two ova]) is not listed on birth certificates, this analysis could not distinguish between twin types. To improve the reliability of the state-specific estimates of rates of twin births, data from 1992–1994 were combined. Because rates of twin births increased with increasing maternal age, state-specific rates were standardized to the U.S. maternal age distribution for 1992–1994 to account for differing age distributions.

During 1992–1994, the rate of twin births in the United States was 24.0 per 1000 live births. Among the 50 states and the District of Columbia, rates ranged from 19.8 (Idaho and New Mexico) to 27.7 (Connecticut and Massachusetts). Rates were highest for the New England, Middle Atlantic, and East North Central regions (Table 1, Figure 1). The 10 highest rates were reported for Connecticut, Massachusetts, New Jersey, Rhode Island, Illinois, Michigan, New York, Delaware, Ohio, and Maryland. In general, rates for states in the South and West were substantially lower than the overall rate for the United States; in particular, six of the 10 states in the Mountain region (New Mexico, Idaho, Utah, Montana, Arizona, and Wyoming) accounted for the lowest rates.

In general, in states with rates of twin births higher than the overall rate for the United States, the maternal age distribution was older than that for the United States overall. Consequently, rates in these states generally decreased after standardization

Rates of Twin Births — Continued

TABLE 1. Observed and adjusted rates of twin births,* by state — United States, 1992–1994

Region/State	Observed rate	Adjusted rate†	% Difference	Region/State	Observed rate	Adjusted rate†	% Difference
New England	**25.5§**	**24.7§**	**–3.1**	**South Atlantic**	**23.9**	**23.8**	**–0.4**
Connecticut	27.7§	25.6§	–7.5	Delaware	25.8	25.7	–0.6
Maine	23.8	23.5	–1.3	District of Columbia	24.4	24.6	1.0
Massachusetts	27.7§	25.4§	–8.2	Florida	23.2§	23.3§	0.4
New Hampshire	24.8	23.2	–6.4	Georgia	24.6	25.2§	2.6
Rhode Island	26.6§	25.5	–4.0	Maryland	25.7§	24.9§	–3.3
Vermont	25.3	24.8	–2.0	North Carolina	24.8§	25.6§	3.1
Middle Atlantic	**26.2§**	**24.9§**	**–5.2**	South Carolina	24.1	25.1§	3.8
New Jersey	26.8§	25.0§	–6.7	Virginia	23.7	23.4§	–1.3
New York	26.0§	24.8§	–4.6	West Virginia	20.7§	22.4§	7.9
Pennsylvania	25.6§	24.9§	–2.7	**East South Central**	**22.5§**	**23.5§**	**4.4**
East North Central	**25.2§**	**25.4§**	**0.8**	Alabama	24.5	25.7§	4.9
Illinois	26.2§	26.1§	–0.6	Kentucky	22.5§	24.0	6.3
Indiana	23.1§	23.9	3.2	Mississippi	25.0§	26.9§	7.7
Michigan	26.2§	26.2§	0.1	Tennessee	24.1	25.3§	4.9
Ohio	25.8§	26.1§	1.2	**West South Central**	**23.3§**	**24.2**	**3.9**
Wisconsin	25.1§	24.6	–2.1	Arkansas	22.7§	24.5	7.7
West North Central	**24.9§**	**25.1§**	**0.8**	Louisiana	24.4	25.7§	5.3
Iowa	25.4§	25.3§	–0.3	Oklahoma	22.2§	23.4	5.4
Kansas	23.3	23.6	1.4	Texas	21.9§	22.6§	3.5
Minnesota	24.2	23.3§	–3.8	**Mountain**	**22.2§**	**22.5§**	**1.4**
Missouri	25.3§	25.7§	1.8	Arizona	21.8§	22.4§	2.7
Nebraska	24.4	24.0	–1.8	Colorado	24.2	23.7	–2.1
North Dakota	24.0	23.5	–1.9	Idaho	19.8§	20.2§	1.8
South Dakota	23.5	23.4	–0.4	Montana	21.2§	21.3§	0.3
Pacific	**22.7§**	**22.4§**	**–1.3**	Nevada	23.2	23.6	1.7
Alaska	21.9§	21.6§	–1.4	New Mexico	19.8§	20.6§	3.9
California	22.0§	21.8§	–1.1	Utah	21.1§	21.3§	0.9
Hawaii	20.2§	19.8§	–1.9	Wyoming	21.8§	22.4	2.8
Oregon	24.0	24.0	–0.2	**Total U.S.**	**24.0**	—	—
Washington	21.3§	21.0§	–1.5				

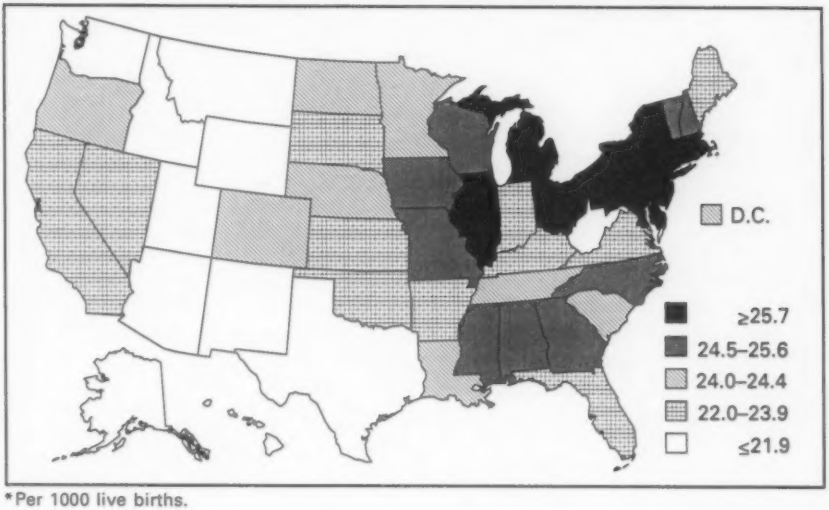
*Live births in twin deliveries per 1000 total live births in specified geographic area.
†Direct standardization with the U.S. maternal age distribution for 1992–1994 as the standard population.
§Significantly different from the U.S. rate at the 0.05 level.

(Table 1). However, rates for nine of the 10 states with the highest observed rates remained significantly higher than the U.S. rate even after standardization. For five of these states (Connecticut, Massachusetts, Illinois, Michigan, and Ohio), rates ranked among the 10 highest after standardization. The persistent differences between rates for these states and the overall rate for the United States primarily reflected higher rates among mothers aged ≥25 years (Figure 2); age-specific rates for states with the highest rates generally were similar to U.S. rates for mothers aged <25 years but higher for mothers aged ≥25 years.

In general, in states with rates of twin births lower than the overall rate for the United States, the maternal age distribution was younger than that for the United States overall. Consequently, rates in these states generally decreased after standardization (Table 1); however, rates for nine of the 10 states with the lowest observed rates remained significantly lower than the U.S. rate even after standardization. The 12 states with the lowest observed rates also had the lowest adjusted rates, although the rank order changed slightly.

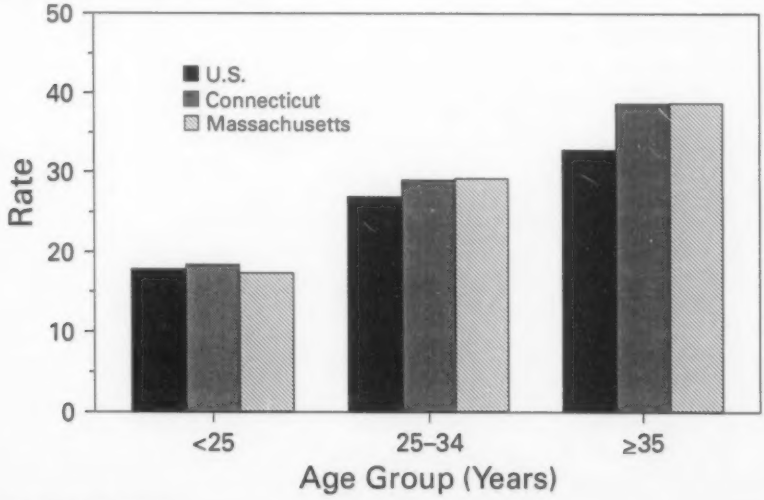
Rates of Twin Births — Continued

FIGURE 1. Rate of twin births*, by state — United States, 1992–1994



*Per 1000 live births.

FIGURE 2. Rate of twin births*, by age of mother — United States, Connecticut, and Massachusetts, 1992–1994



*Per 1000 live births.

Rates of Twin Births — Continued

The state-specific variation in rates of twin births also reflected state-specific differences in racial/ethnic composition, although in some states the small numbers of twin births for which detailed age and racial/ethnic information was listed precluded reliable standardization (*2*; CDC, unpublished data, 1994). For 1994, the twin birth rate among non-Hispanic white mothers was 24.3; among non-Hispanic black mothers, 28.3; and among Hispanic mothers, 18.6. However, accounting for these differences does not completely account for state variation in twin births. For example, even after simultaneously adjusting for maternal age, race, and Hispanic origin, rates of twin births for Connecticut and Massachusetts remained significantly higher than the rate for the United States overall.

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Editorial Note: The findings in this report document substantial state-specific variation in rates of twin births for 1992–1994; however, this variation is accounted for only in part by state-specific differences in maternal age distributions. State variation in rates of twin births also can be influenced by differences in the use of therapies that enhance fertility (e.g., fertility drugs and techniques). These therapies have been associated with the recent increase in multiple births (*3–5*). Although reliable estimates of state-specific use of fertility drugs are not available, use of in vitro fertilization (IVF) varies widely by state (*6*). In addition, during 1992–1994, a total of 11 states had mandated insurance benefits for fertility treatment, including IVF (*7*). Differences among states in mandated benefits also may influence state rates of twin births.

Although twin births constitute only approximately 2% of all births, the risk for LBW among twins is seven times greater than that among singletons. In addition, twins account for 17% of all LBW infants and approximately 12% of all infant deaths. Consequently, state rates of LBW are at least partially influenced by the rate of twin births in the state. For example, if rates of twin births were equal to that of the total United States, the LBW rate in Connecticut would be 5% lower than the observed rate and the New Mexico rate, 2% higher. State-specific rates of twin births also may influence other indicators of infant health, such as state infant mortality rates.

The findings in this report can be used by public health agencies, health-care organizations and researchers, and policymakers in evaluating and planning programs related to infant health. The sustained increase in the proportion of multiple births in the United States requires continued assessment to clarify the influence of state-specific multiple-birth rates in state comparisons of infant health indicators.

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Rates of Twin Births — Continued

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Ingestion of Cigarettes and Cigarette Butts by Children — Rhode Island, January 1994–July 1996

During 1995, the American Association of Poison Control Centers (AAPCC) received 7917 reports of potentially toxic exposures to tobacco products among children aged ≤6 years in the United States (*1*). Most cases of nicotine poisoning among children result from their ingestion of cigarettes or cigars (*2*). Acute nicotine poisoning is characterized by rapid onset of symptoms that may be severe when large amounts have been ingested (*2*). During January 1994–July 1996, the Rhode Island Poison Control Center (RIPCC) received 146 reports of ingestion of products containing nicotine by children aged ≤6 years. To characterize risk factors for and outcomes associated with ingestion of cigarettes and cigarette butts among children aged ≤6 years, the Rhode Island Department of Health (RIDH) analyzed data from the RIPCC and the 1996 Rhode Island Health Interview Survey (RIHIS). This report summarizes the findings of the study, which indicate that ingestion of cigarettes and cigarette butts by children aged ≤6 years resulted in minor toxic effects and occurred more frequently in households where smoking was permitted in the presence of children and where cigarettes and cigarette wastes were accessible to children.

Information about toxic exposures reported to the RIPCC is recorded on standardized forms published by the AAPCC. RIDH identified reports of ingestion of products containing nicotine among children aged ≤6 years during January 1994–July 1996. Data abstracted included age, sex, type of nicotine-containing product ingested, time of report, relationship between the person who made the report and the child, location where the ingestion occurred, symptoms, and whether the child visited a health-care facility (i.e., emergency department, doctor's office, or health maintenance organization [HMO] clinic). For reports with follow-up information (collected by Certified Specialists in Poison Information within 4 hours of the initial report), RIDH attempted to interview parents by telephone to obtain more detailed information about the household.

To identify risk factors for ingestion of cigarettes and cigarette butts, RIDH conducted a case-control study. Controls were determined using the 1996 RIHIS (a representative stratified random-digit–dialed survey of telephone-equipped households in Rhode Island) and included persons in households with at least one cigarette smoker (i.e., smoked cigarettes now) and at least one child aged ≤6 years. Factors assessed included history of ingestion of toxic substances, types of tobacco products used in the household, storage of cigarettes, location of ashtrays, household smoking policies, and type of child care. Of 123 parents identified as control sources, 67 (55%) completed a telephone interview. Odds ratios (ORs) and 95% confidence intervals

Cigarette and Cigarette Butt Ingestion — Continued

(CIs) were used to measure the association between categorical variables and the ingestion of cigarettes or cigarette butts.

Of the 146 reports of children who ingested products containing nicotine, follow-up information was available for 90 (62%) and involved the ingestion of cigarettes or cigarette butts (an additional report with follow-up information involved the ingestion of pipe tobacco). The mean age of the 90 children was 11.7 months (range: 6–24 months); of these, 69 (77%) were aged 6–12 months (Table 1), and 48 (53%) were males. Fifty (56%) had ingested cigarettes, and 40 (44%) had ingested cigarette butts. Of the 50 children who had ingested cigarettes, 36 (72%) had ingested less than a whole cigarette. Of the 40 children who had ingested cigarette butts, 22 (55%) ingested less than a whole cigarette butt. A total of 32 (36%) of the episodes occurred during 7 a.m. to 10 a.m. (Table 1), but all reports were made within 30 minutes of either the onset of symptoms or when the reporting person recognized that a child had ingested cigarettes or cigarette butts. Most (81 [90%]) of the exposures were reported by parents, and 88 (98%) of the exposures occurred in the child's home (Table 1). Symptoms were reported in 30 (33.3%) of the children and included spontaneous vomiting (up to four episodes) (26 [87%]), nausea (two [7%]), pale or flushed appearance (two [7%]), lethargy (one [3%]), and gagging (one [3%]). Thirteen (14%) of the children had been taken to a health-care facility. All 30 children recovered fully within 12 hours.

Telephone interviews were completed with the parents of 35 (39%) of the 90 children (the parents of other children either could not be contacted or refused to participate). Based on these interviews and those of controls, children who ingested cigarettes or cigarette butts were more likely to live in homes where smoking occurred in the presence of children (25 [83%] versus 27 [52%]) (OR=4.6, 95% CI=1.4–17.6) or in which cigarettes (28 [80%] versus 22 [37%]) (OR=6.6, 95% CI=2.3–21.0) or ashtrays (30 [86%] versus 25 [45%]) (OR=7.3, 95% CI=2.3–27.6) were located within the children's reach. Smoking in the presence of children remained a significant risk factor for the ingestion of cigarettes or cigarette butts after controlling for the location of cigarettes (adjusted OR=7.8, 95% CI=2.0–30.2) and ashtrays (adjusted OR=5.9, 95% CI=1.6–22.6) within the household.

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Editorial Note: The investigation in Rhode Island documented ingestion of cigarettes or cigarette butts by children aged 6–24 months, an age range during which children are actively exploring their environment and are at increased risk for ingesting toxic substances (*3*). These ingestions were associated with only minor toxic clinical effects; however, previous reports have described severe toxicity among children who ingested cigarettes, cigarette butts, or snuff, including depressed respiration, cardiac arrhythmia, and convulsions (*4–6*). In Rhode Island, ingestion also was associated with smoking in the presence of children and easy accessability to cigarettes and cigarette butts, reflecting careless placement of these objects and/or lack of parent's knowledge about the potential toxicity of ingested tobacco products.

The findings in this report are subject to at least three limitations. First, the number of episodes most likely was underestimated because asymptomatic ingestions may

Cigarette and Cigarette Butt Ingestion — Continued

TABLE 1. Number and percentage of cigarette and cigarette butt ingestions by children aged ≤6 years, by selected characteristics — Rhode Island, January 1994–July 1996

Characteristic	No. children	(%)
Age group (mos)*		
6–12	69	(76.7)
13–19	16	(17.8)
20–24	5	(5.6)
Sex		
Female	42	(46.7)
Male	48	(53.3)
Type of substance		
Cigarette	50	(55.6)
Cigarette butt	40	(44.4)
Hour of day occurred†		
7 a.m.–10 a.m.	32	(35.6)
11 a.m.– 2 p.m.	17	(18.9)
3 p.m.– 6 p.m.	24	(26.7)
7 p.m.–10 p.m.	15	(16.7)
10 p.m.– 1 a.m.	2	(2.2)
Source of report		
Mother	71	(78.9)
Father	10	(11.1)
Other relative	3	(3.3)
Health-care worker	5	(5.6)
Rescue worker	1	(1.1)
Site of exposure		
Own residence	88	(97.8)
Other residence	1	(1.1)
Public park	1	(1.1)
Clinical symptoms		
Yes	30	(33.3)
No	60	(66.7)
Visited health-care facility		
Yes	13	(14.4)
No	77	(85.6)
Total	**90**	**(100.0)**

*No cases were reported among children aged ≥25 months.
†No calls were made during 1 a.m.–7 a.m.

not have been reported, ingestion was successfully treated by a health-care provider, or because some parents were unaware of the RIPCC. Second, the response rate for the case-control study was low; because children in homes where parents did not participate may have been more likely to have access to cigarettes or cigarette butts than children in homes of study participants, risk may have been underestimated. Finally, the study could not identify risk factors for the ingestion of other tobacco products because the use of tobacco products other than cigarettes was not included in the RIHIS.

Cigarette and Cigarette Butt Ingestion — Continued

The findings in this report will be used by RIDH and other public health agencies to develop approaches for decreasing exposures to cigarettes and cigarette butts among young children. These approaches may include public education about the potential toxicity of tobacco products, the health benefits of not smoking in the presence of children (i.e., the toxic effects of environmental tobacco smoke), and the safe storage and disposal of tobacco products (i.e., use of child-resistant containers). Tobacco products should be kept out of reach of children. However, if ingestion does occur, a poison-control center should be consulted to assess the risks for serious toxicity and review measures for appropriate treatment. In addition to preventing nicotine poisonings, avoiding the use of tobacco products in the presence of children should decrease the risk for infections from respiratory diseases in children (*7*); the risk that children will smoke in the future (*8*); and children's access to lighted cigarettes, matches, and cigarette lighters, thereby reducing fires started by children—the leading cause of fire-related deaths among children aged <5 years (*9*).

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Nonhuman Primate Spumavirus Infections Among Persons with Occupational Exposure — United States, 1996

Nonhuman primate (NHP) species used in biomedical research may be infected with a variety of retroviruses including simian immunodeficiency virus (SIV), simian spumaviruses (i.e., simian foamy viruses [SFV]), simian T-lymphotrophic viruses (STLV), and/or simian type D retroviruses. All of these retroviruses cause life-long infections in NHPs, and some are transmissible through sexual contact, blood, or breast-feeding. Following the detection of SIV infection in a worker with occupational exposure to SIV (*1*), in 1993 CDC and the National Institutes of Health conducted an anonymous serosurvey using stored specimens collected from U.S. workers with similar exposures. SIV seroreactivity was present in three (0.6%) of 427 stored serum samples (*2*). As a result of this finding, in 1993 CDC implemented a voluntary testing and counseling surveillance program to link specific exposures or health outcomes with the SIV serostatus of persons with potential occupational exposure to SIV. In 1995, the linked surveillance program was expanded to include voluntary testing and counseling for exposure to SFV, STLV, and simian type D retroviruses. As of November 20, 1996, samples from 231 of the participating volunteer workers had been tested for SFV; infection was documented in three (1.3%). This report presents laboratory findings and case descriptions of these three infections, which indicate that SFV from NHPs can persistently infect exposed humans and may or may not cause disease or be transmitted among humans.

Laboratory Findings

An immunofluorescent assay (IFA) using cells infected with SFV serotype 3 identified antibodies to SFV in recently collected serum specimens from all three SFV-infected workers. The three specimens also were positive by Western blot (WB), indicating reactivity to both p70 and p74 gag precursor bands of SFV-3 antigen.

Samples from the three workers also were tested for SFV proviral DNA sequences using polymerase chain reaction (PCR) assays employing primer sets from two regions of the polymerase gene that are conserved among known primate foamy viruses. Samples from all three workers were positive in both regions. Sequencing of the PCR products from one region indicated that the sequences from each worker were distinct from each other; however, all three demonstrated >80% homology to known spumavirus sequences of NHP origin. Subsequent specimens obtained from these three workers also tested positive by IFA, WB, and PCR.

Virus isolation was attempted by co-culturing the peripheral blood lymphocytes (PBLs) of worker 1 with a cell line known to be permissive for spumavirus infection. Reverse transcriptase (RT) activity was detected in co-cultures from worker 1 but not from control co-cultures using PBLs from an unexposed human. Supernatant RT activity was transferred from co-cultures of these PBLs from the infected worker to uninfected cells, which subsequently exhibited cytopathic effect. DNA PCR of these infected cells was positive for SFV. Infected cells were strongly reactive to serum samples from all three workers by both IFA and WB but unreactive to control serum specimens. Electron microscopy indicated that cytoplasmic vesicles in virus-infected cells contained particles with a morphology characteristic of foamy virus. Co-cultures of PBLs from workers 2 and 3 are ongoing.

Spumavirus Infections — Continued

Antibodies to SFV also were present in serum archived from worker 1 in 1995 and from worker 3 in 1988, and from worker 2 during 1978–1997. Two serum specimens archived from worker 2 in 1967 were seronegative.

Case Descriptions

Worker 1 has been employed intermittently for a cumulative total of 20 years during 1961–1997 as a caretaker for NHPs and reported a history of multiple minor injuries and mucocutaneous exposures to NHP blood, body fluids, and fresh tissue. Worker 1 was bitten twice by African green monkeys during the late 1960s or early 1970s; each of these injuries required seven to 10 stitches. Worker 1 is in good health. No serum specimens are available from worker 1 before 1995 or from sexual partners.

Worker 2 is a research scientist who has worked with biologic specimens from NHPs for 30 years and rarely had injuries involving NHP blood, body fluids, or unfixed tissue. In the early 1970s, the worker incurred two puncture wounds, one with an instrument contaminated with chimpanzee blood and one with an instrument that may have been contaminated with baboon body fluids. Worker 2 is in good health and has been in a monogamous sexual relationship without use of barrier contraceptives or spermicides for approximately 20 years. The worker's spouse is negative for SFV infection by both serologic and PCR testing.

Worker 3, a veterinary technician who has worked with NHPs for approximately 30 years, reported multiple minor injuries and associated mucocutaneous exposures to NHP blood, body fluids, or unfixed tissues. In approximately 1980, the worker incurred a severe baboon bite that required multiple stitches. Worker 3 has common chronic diseases of aging but is otherwise in good health. The worker has been in a monogamous sexual relationship for nearly 30 years, during which barrier methods of contraception have not been used and spermicides were used for an approximately 6-month period. The spouse is negative for SFV infection by both serologic and PCR testing.

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Editorial Note: Natural SFV infections in NHPs have not been definitively associated with disease. In comparison, infections of NHPs with the other retroviruses may result in a broad clinical spectrum, ranging from asymptomatic infection to life-threatening immunodeficiency syndromes or lymphoproliferative disorders. The transmission routes of SFVs among NHPs remain undefined, but the prevalence of seroreactivity is high among captive adult NHPs (*3*).

Characterization of spumavirus infection in humans is limited. Early studies described a relatively high rate of seroreactivity to spumaviruses among human populations not known to be exposed to NHPs. However, these studies lacked definitive evidence of human infection and were not subsequently confirmed. Improved diagnostic assays have not documented evidence of foamy virus infection in large populations (approximately 8000 persons) (*3–7*). Therefore, the findings in this report underscore the importance of the identification of seroreactivity in the three workers occupationally exposed to NHPs. Persistent infection in these three workers is indicated by the PCR identification of SFV genome sequences in biologic specimens from all three and isolation of the virus from one. Infection with SFV has been confirmed

Spumavirus Infections — Continued

previously in only two persons, both of whom had occupational risks for infection; associated disease was not reported in either person (*3*).

Based on prospective surveillance, the prevalence of exposures to NHP blood, body fluid, and tissues is high among occupationally exposed workers. The risk for exposure was highest for animal-care workers and persons performing invasive procedures, and increased with duration of occupational risk. Needlestick or mucocutaneous exposures were reported by 35% of workers with a median of 7.5 years of occupational risk (CDC, unpublished data, 1997).

The potential that xenotransplantation (the use of living biologic material from nonhuman species in humans for medical purposes) may introduce new infectious agents to humans emphasizes the need for characterization of the ability of simian retroviruses to infect and/or cause disease in humans (*8,9*). The sources for xenografts have included baboons. Surveillance of persons at occupational risk for exposure to retroviruses from NHPs may quantify risks for xenograft transmission of these viruses and provide information on their pathogenicity to and transmissibility among humans. Surveillance also will provide information on the implications of xenograft procurement from SFV-infected animals.

The risks for developing disease in these SFV-infected workers or for transmission of infection by them to other humans remains undefined. CDC is continuing efforts to further define the health status of and to identify additional archived serum from these three workers and to define further the prevalence and health implications of infection with SFV and other simian retroviruses among persons at occupational risk for infection. Measures for decreasing the frequency of human exposure to NHP retroviruses include training and educating workers, adhering to universal precautions, using work practices or engineering controls to reduce exposure to sharp instruments, and using personal protection equipment for bite prevention (*10*).

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Notice to Readers

Introduction to Public Health Surveillance Course

CDC and Emory University will cosponsor a course to provide public health professionals with the theoretical and practical tools necessary to design, implement, and evaluate effective public health surveillance programs. Designed for public health professionals, "Introduction to Public Health Surveillance" will be held in Atlanta during June 2–6, 1997. Topics include overview and history of public health surveillance systems; planning considerations; sources and collection of data; analysis, interpretation, and communication of data; surveillance systems technology; program evaluation; ethics and legalities; state and local concerns; issues in developing countries; and future considerations. There is a tuition charge.

Deadline for application is April 28, 1997. Additional information and applications are available from Department PSB, Rollins School of Public Health, Emory University, 7th Floor, 1518 Clifton Road, N.E., Atlanta, GA 30322; telephone (404) 727-3485; fax (404) 727-4590; email brachman@sph.emory.edu.

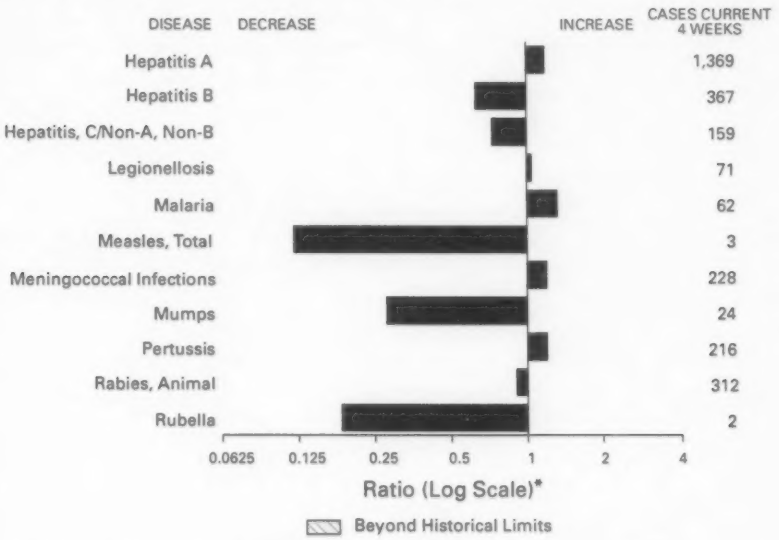
Notice to Readers

Epidemiology in Action Course

CDC and Emory University will cosponsor an applied epidemiology course designed for practicing state and local health department professionals. This course, "Epidemiology in Action," will be held at CDC during April 28–May 9, 1997. The course emphasizes the practical application of epidemiology to public health problems and will consist of lectures, workshops, classroom exercises (including actual epidemiologic problems), roundtable discussions, and a telephone survey. Topics covered include descriptive epidemiology and biostatistics, analytic epidemiology, epidemic investigations, public health surveillance, surveys and sampling, computers and Epi Info software training, and discussions of selected prevalent diseases. There is a tuition charge.

Deadline for application is March 31, 1997. Additional information and applications are available from Department PSB, Rollins School of Public Health, Emory University, 7th Floor, 1518 Clifton Road, N.E., Atlanta GA 30322; telephone (404) 727-3485; fax (404) 727-4590; email brachman@sph.emory.edu.

FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending February 8, 1997, with historical data — United States



*Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary — provisional cases of selected notifiable diseases, United States, cumulative, week ending February 8, 1997 (6th Week)

	Cum. 1997		Cum. 1997
Anthrax	-	Plague	-
Brucellosis	4	Poliomyelitis, paralytic	-
Cholera	-	Psittacosis	2
Congenital rubella syndrome	2	Rabies, human	-
Cryptosporidiosis*	90	Rocky Mountain spotted fever (RMSF)	8
Diphtheria	-	Streptococcal disease, invasive Group A	87
Encephalitis: California*	-	Streptococcal toxic-shock syndrome*	5
eastern equine*	-	Syphilis, congenital¶	-
St. Louis*	-	Tetanus	1
western equine*	-	Toxic-shock syndrome	9
Hansen Disease	9	Trichinosis	2
Hantavirus pulmonary syndrome*†	-	Typhoid fever	24
Hemolytic uremic syndrome, post-diarrheal*	6	Yellow fever	-
HIV infection, pediatric*§	19		

-:no reported cases
*Not notifiable in all states.
†Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).
§Updated monthly to the Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention (NCHSTP), last update January 28, 1997.
¶Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending February 8, 1997, and February 10, 1996 (6th Week)

Reporting Area	AIDS* Cum. 1997	AIDS* Cum. 1996	Chlamydia Cum. 1997	Chlamydia Cum. 1996	*Escherichia coli* O157:H7 NETSS† Cum. 1997	*Escherichia coli* O157:H7 PHLIS§ Cum. 1997	Gonorrhea Cum. 1997	Gonorrhea Cum. 1996	Hepatitis C/NA,NB Cum. 1997	Hepatitis C/NA,NB Cum. 1996
UNITED STATES	5,109	4,687	28,823	36,910	88	33	22,189	35,685	232	291
NEW ENGLAND	134	315	1,579	2,103	8	5	575	890	1	6
Maine	13	7	49	-	-	-	3	3	-	-
N.H.	1	2	63	65	-	-	25	13	-	-
Vt.	7	-	40	54	1	1	8	13	-	3
Mass.	62	246	834	775	6	4	287	340	1	3
R.I.	19	9	254	250	-	-	64	61	-	-
Conn.	32	51	339	959	1	-	188	460	-	-
MID. ATLANTIC	1,921	1,435	2,081	1,884	6	-	1,277	2,896	20	8
Upstate N.Y.	113	236	N	N	4	-	61	2	11	5
N.Y. City	1,039	709	-	1,272	1	-	-	1,366	-	1
N.J.	468	353	617	612	1	-	347	277	-	-
Pa.	301	137	1,464	-	N	-	869	1,251	9	2
E.N. CENTRAL	242	416	4,918	9,907	10	2	3,725	7,001	62	51
Ohio	57	141	1,296	2,224	6	2	1,008	1,591	4	2
Ind.	25	50	563	929	1	-	535	805	1	-
Ill.	115	158	1,256	2,975	-	-	625	2,226	-	11
Mich.	29	36	1,558	2,526	3	-	1,366	1,767	57	38
Wis.	16	31	245	1,253	N	-	191	612	-	-
W.N. CENTRAL	127	143	1,835	3,149	14	7	835	1,606	11	8
Minn.	17	20	-	562	9	7	U	-	-	-
Iowa	38	17	517	1	4	-	142	-	3	1
Mo.	54	52	819	1,383	1	-	541	1,198	2	5
N. Dak.	2	-	81	90	-	-	5	5	1	-
S. Dak.	-	2	113	118	-	-	15	16	-	-
Nebr.	15	15	30	476	-	-	3	81	-	2
Kans.	1	37	275	519	-	-	129	306	5	-
S. ATLANTIC	1,239	863	7,835	4,756	8	-	9,467	12,338	22	14
Del.	20	32	-	-	-	-	120	182	-	-
Md.	166	69	576	445	-	-	1,431	1,739	3	-
D.C.	55	65	N	N	-	-	618	566	-	-
Va.	130	35	1,275	1,353	N	-	1,041	1,119	-	1
W. Va.	14	7	-	-	N	-	63	45	-	3
N.C.	59	1	2,236	-	2	-	1,926	2,253	8	4
S.C.	104	12	922	-	-	-	1,500	1,649	9	1
Ga.	183	213	648	699	3	-	979	2,778	U	-
Fla.	508	429	2,178	2,259	3	-	1,789	2,007	2	5
E.S. CENTRAL	134	154	2,630	3,088	12	3	2,799	3,615	34	61
Ky.	23	43	691	779	3	-	500	506	1	-
Tenn.	59	56	1,277	1,261	8	3	1,224	1,251	11	61
Ala.	37	35	662	1,022	-	-	1,075	1,611	1	-
Miss.	15	20	-	26	1	-	-	247	21	-
W.S. CENTRAL	420	509	1,321	3,216	1	1	1,537	3,793	21	36
Ark.	18	19	156	143	1	-	292	509	1	-
La.	64	129	630	-	-	1	762	965	14	6
Okla.	32	1	535	640	-	-	483	491	-	25
Tex.	306	360	-	2,433	-	-	-	1,828	6	5
MOUNTAIN	122	129	2,044	1,108	15	13	756	945	40	73
Mont.	7	2	85	-	-	-	6	2	2	3
Idaho	2	1	159	153	-	-	15	9	8	15
Wyo.	1	-	59	69	-	-	6	6	14	20
Colo.	24	53	-	-	9	5	214	233	10	9
N. Mex.	5	8	485	378	3	1	116	108	2	16
Ariz.	30	37	918	63	N	5	318	463	3	5
Utah	10	22	137	143	1	-	18	39	-	4
Nev.	43	6	201	302	2	2	63	85	1	1
PACIFIC	770	723	4,580	7,699	14	2	1,218	2,601	21	34
Wash.	45	64	975	1,071	1	-	258	302	-	3
Oreg.	30	63	55	566	3	2	17	9	1	2
Calif.	682	586	3,288	5,813	10	-	843	2,164	-	10
Alaska	10	3	141	46	-	-	59	60	-	1
Hawaii	3	7	121	203	N	-	41	66	20	18
Guam	-	-	-	46	N	-	-	14	-	-
P.R.	144	248	N	N	-	U	46	13	-	6
V.I.	4	1	N	N	N	U	-	-	-	-
Amer. Samoa	-	-	-	-	N	U	-	-	-	-
C.N.M.I.	-	-	N	N	N	U	-	5	-	-

N: Not notifiable U: Unavailable -: no reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands

*Updated monthly to the Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention, last update January 28, 1997.
†National Electronic Telecommunications System for Surveillance.
§Public Health Laboratory Information System.

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending February 8, 1997, and February 10, 1996 (6th Week)

Reporting Area	Legionellosis		Lyme Disease		Malaria		Syphilis (Primary & Secondary)		Tuberculosis		Rabies, Animal
	Cum. 1997	Cum. 1996	Cum. 1997	Cum. 1996	Cum. 1997	Cum. 1996	Cum. 1997	Cum. 1996	Cum. 1997	Cum. 1996	Cum. 1997
UNITED STATES	88	87	178	348	107	99	741	1,363	853	1,204	502
NEW ENGLAND	5	3	11	41	1	3	12	22	19	24	63
Maine	-	-	-	-	-	-	-	-	-	2	16
N.H.	-	-	1	-	-	-	-	-	1	-	2
Vt.	1	-	1	-	-	1	-	-	-	-	12
Mass.	3	1	2	-	-	2	4	8	6	2	6
R.I.	-	2	7	10	1	-	-	-	3	7	-
Conn.	1	N	-	31	-	-	8	14	9	13	27
MID. ATLANTIC	13	13	129	280	15	33	9	32	79	115	120
Upstate N.Y.	3	1	1	10	1	2	-	4	8	12	91
N.Y. City	-	-	1	131	9	18	-	11	30	40	-
N.J.	1	4	19	40	4	11	1	6	23	32	9
Pa.	9	8	108	99	1	2	8	11	18	31	20
E.N. CENTRAL	42	38	3	2	7	12	78	253	146	221	1
Ohio	28	14	2	1	1	-	26	98	42	35	-
Ind.	-	8	1	1	1	1	13	36	13	16	1
Ill.	-	2	-	-	-	4	14	67	89	154	-
Mich.	14	12	-	-	5	5	14	23	-	13	-
Wis.	-	2	U	U	-	2	11	29	2	3	-
W.N. CENTRAL	1	4	-	3	1	2	13	58	25	21	39
Minn.	-	-	-	-	-	-	-	4	13	3	5
Iowa	-	-	-	-	1	1	1	-	4	5	24
Mo.	1	2	-	1	-	1	8	46	6	9	3
N. Dak.	-	-	-	-	-	-	-	-	1	-	6
S. Dak.	-	-	-	-	-	-	-	-	1	-	-
Nebr.	-	2	-	-	-	-	-	3	-	-	-
Kans.	-	-	-	2	-	-	4	5	-	4	1
S. ATLANTIC	13	10	21	14	32	15	353	391	104	83	245
Del.	1	1	-	3	1	2	3	7	-	6	2
Md.	8	1	17	10	7	4	90	59	13	12	51
D.C.	1	1	3	-	2	1	14	11	6	6	1
Va.	-	2	-	-	8	3	34	56	-	1	40
W. Va.	-	1	-	-	-	-	-	1	6	9	5
N.C.	-	3	1	1	1	2	83	94	24	17	86
S.C.	-	1	-	-	3	-	51	45	27	32	7
Ga.	-	-	-	-	3	2	51	92	23	-	25
Fla.	3	-	-	-	7	1	27	26	5	-	28
E.S. CENTRAL	4	7	10	5	5	-	157	347	55	108	10
Ky.	-	3	1	2	1	-	16	30	14	12	4
Tenn.	1	2	2	3	1	-	89	99	9	25	-
Ala.	1	-	-	-	1	-	52	56	32	44	6
Miss.	2	2	7	-	2	-	-	162	-	27	-
W.S. CENTRAL	-	-	-	-	-	1	90	178	13	13	12
Ark.	-	-	-	-	-	-	10	42	11	3	2
La.	-	-	-	-	-	-	62	52	-	-	-
Okla.	-	-	-	-	-	-	18	10	2	10	10
Tex.	-	-	-	-	-	1	-	74	-	-	-
MOUNTAIN	7	5	-	-	7	6	17	22	16	61	2
Mont.	-	-	-	-	1	-	-	-	-	-	1
Idaho	-	-	-	-	-	-	-	-	-	1	-
Wyo.	-	-	-	-	-	-	-	-	1	-	-
Colo.	2	3	-	-	5	4	-	8	2	16	-
N. Mex.	-	-	-	-	-	1	-	-	-	2	-
Ariz.	3	1	-	-	-	-	16	12	10	35	1
Utah	2	-	-	-	-	1	-	-	1	-	-
Nev.	-	1	-	-	1	-	1	2	2	7	-
PACIFIC	3	7	4	3	39	27	12	60	396	558	10
Wash.	1	-	-	-	-	-	-	-	10	28	-
Oreg.	-	-	1	1	2	4	-	1	-	20	-
Calif.	2	7	3	2	37	23	12	59	353	488	10
Alaska	-	-	-	-	-	-	-	-	8	12	-
Hawaii	-	-	-	-	-	-	-	-	25	10	-
Guam	-	-	-	-	-	-	-	2	-	-	-
P.R.	-	-	-	-	1	-	18	10	-	-	2
V.I.	-	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	-	-	-	-	-	-

N: Not notifiable U: Unavailable -: no reported cases

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending February 8, 1997, and February 10, 1996 (6th Week)

Reporting Area	*H. influenzae*, invasive		Hepatitis (Viral), by type				Measles (Rubeola)					
			A		B		Indigenous		Imported†		Total	
	Cum. 1997*	Cum. 1996	Cum. 1997	Cum. 1996	Cum. 1997	Cum. 1996	1997	Cum. 1997	1997	Cum. 1997	Cum. 1997	Cum. 1996
UNITED STATES	110	144	2,210	2,703	631	816	-	3	1	2	5	8
NEW ENGLAND	6	4	40	19	11	17	-	-	-	-	-	4
Maine	2	-	2	3	1	-	-	-	-	-	-	-
N.H.	1	4	1	2	-	-	-	-	-	-	-	-
Vt.	-	-	3	-	-	1	-	-	-	-	-	1
Mass.	2	-	13	6	7	1	-	-	-	-	-	3
R.I.	1	-	2	2	1	1	-	-	-	-	-	-
Conn.	-	-	19	6	2	14	-	-	-	-	-	-
MID. ATLANTIC	13	21	149	194	83	135	-	-	-	-	-	2
Upstate N.Y.	-	2	2	11	7	8	-	-	-	-	-	1
N.Y. City	5	4	62	106	40	74	-	-	-	-	-	1
N.J.	6	9	50	41	22	32	-	-	-	-	-	-
Pa.	2	6	35	36	14	21	-	-	-	-	-	-
E.N. CENTRAL	11	25	160	286	74	108	-	-	-	1	1	-
Ohio	11	14	66	112	12	14	-	-	-	-	-	-
Ind.	-	-	23	32	5	3	-	-	-	-	-	-
Ill.	-	10	-	75	-	38	-	-	-	-	-	-
Mich.	-	-	68	36	57	42	-	-	-	1	1	-
Wis.	-	1	3	31	-	11	-	-	-	-	-	-
W.N. CENTRAL	3	6	151	219	37	56	-	-	-	-	-	-
Minn.	2	-	1	-	-	-	-	-	-	-	-	-
Iowa	-	3	27	56	17	6	-	-	-	-	-	-
Mo.	1	3	77	114	13	39	-	-	-	-	-	-
N. Dak.	-	-	-	1	-	-	-	-	-	-	-	-
S. Dak.	-	-	5	6	-	-	-	-	-	-	-	-
Nebr.	-	-	11	22	1	5	-	-	-	-	-	-
Kans.	-	-	30	20	6	6	-	-	-	-	-	-
S. ATLANTIC	29	23	173	80	81	108	-	-	-	-	-	-
Del.	-	-	6	1	1	-	U	-	U	-	-	-
Md.	8	7	52	22	23	35	-	-	-	-	-	-
D.C.	2	-	3	3	6	1	-	-	-	-	-	-
Va.	1	-	18	8	9	14	-	-	-	-	-	-
W. Va.	-	-	1	2	2	3	-	-	-	-	-	-
N.C.	5	5	22	18	16	37	-	-	-	-	-	-
S.C.	3	1	10	8	7	6	-	-	-	-	-	-
Ga.	2	10	23	-	-	-	-	-	-	-	-	-
Fla.	8	-	38	18	17	12	-	-	-	-	-	-
E.S. CENTRAL	8	4	71	207	81	79	-	-	-	-	-	-
Ky.	1	-	5	4	1	6	-	-	-	-	-	-
Tenn.	7	2	37	170	49	68	-	-	-	-	-	-
Ala.	-	2	10	9	5	5	-	-	-	-	-	-
Miss.	-	-	19	24	26	U	-	-	-	-	-	-
W.S. CENTRAL	5	7	234	328	14	29	-	-	-	-	-	-
Ark.	-	-	29	55	5	6	-	-	-	-	-	-
La.	-	-	2	6	3	5	-	-	-	-	-	-
Okla.	4	7	151	207	-	6	-	-	-	-	-	-
Tex.	1	-	52	60	6	12	-	-	-	-	-	-
MOUNTAIN	7	10	471	403	97	113	-	-	-	-	-	-
Mont.	-	-	14	8	-	-	-	-	-	-	-	-
Idaho	-	1	22	61	-	11	-	-	-	-	-	-
Wyo.	-	-	3	3	4	3	-	-	-	-	-	-
Colo.	1	1	69	33	25	15	-	-	-	-	-	-
N. Mex.	1	4	24	71	33	48	-	-	-	-	-	-
Ariz.	2	2	193	100	20	12	-	-	-	-	-	-
Utah	1	1	122	96	12	18	-	-	-	-	-	-
Nev.	2	1	24	31	3	6	-	-	-	-	-	-
PACIFIC	28	44	761	967	153	171	-	3	1	1	4	2
Wash.	-	-	26	30	3	7	-	-	-	-	-	1
Oreg.	5	4	54	160	22	16	-	-	-	-	-	-
Calif.	21	38	667	752	123	146	-	-	1	1	1	-
Alaska	-	-	3	10	2	1	-	-	-	-	-	-
Hawaii	2	2	11	15	3	1	-	3	-	-	3	1
Guam	-	-	-	2	-	-	U	-	U	-	-	-
P.R.	-	-	4	11	9	18	U	-	U	-	-	-
V.I.	-	-	-	-	-	-	U	-	U	-	-	-
Amer. Samoa	-	-	-	-	-	-	U	-	U	-	-	-
C.N.M.I.	-	10	-	1	-	3	U	-	U	-	-	-

N: Not notifiable U: Unavailable -: no reported cases

*Of 18 cases among children aged <5 years, serotype was reported for 8 and of those, 3 were type b.

†For imported measles, cases include only those resulting from importation from other countries.

TABLE III. (Cont'd.) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending February 8, 1997, and February 10, 1996 (6th Week)

Reporting Area	Meningococcal Disease		Mumps			Pertussis			Rubella		
	Cum. 1997	Cum. 1996	1997	Cum. 1997	Cum. 1996	1997	Cum. 1997	Cum. 1996	1997	Cum. 1997	Cum. 1996
UNITED STATES	371	480	12	30	58	56	404	216	-	-	10
NEW ENGLAND	26	22	-	-	-	13	110	65	-	-	-
Maine	2	5	-	-	-	-	4	2	-	-	-
N.H.	3	1	-	-	-	5	23	3	-	-	-
Vt.	-	1	-	-	-	8	54	6	-	-	-
Mass.	15	4	-	-	-	-	29	54	-	-	-
R.I.	2	4	-	-	-	-	-	-	-	-	-
Conn.	4	7	-	-	-	-	-	-	-	-	-
MID. ATLANTIC	23	39	-	2	8	2	11	24	-	-	1
Upstate N.Y.	3	2	-	-	2	2	8	15	-	-	-
N.Y. City	4	9	-	-	2	-	-	6	-	-	-
N.J.	6	11	-	-	2	-	-	2	-	-	1
Pa.	10	17	-	2	2	-	3	1	-	-	-
E.N. CENTRAL	39	65	4	6	14	7	40	48	-	-	-
Ohio	30	29	-	2	8	5	30	21	-	-	-
Ind.	6	6	2	2	-	-	-	2	-	-	-
Ill.	-	18	1	1	1	-	3	3	-	-	-
Mich.	3	3	1	1	5	2	7	5	-	-	-
Wis.	-	9	-	-	-	-	-	17	-	-	-
W.N. CENTRAL	33	47	2	2	2	4	12	4	-	-	-
Minn.	2	-	-	-	-	2	3	-	-	-	-
Iowa	10	8	2	2	-	1	6	-	-	-	-
Mo.	12	27	-	-	-	-	-	3	-	-	-
N. Dak.	-	1	-	-	2	1	1	-	-	-	-
S. Dak.	1	2	-	-	-	-	1	-	-	-	-
Nebr.	3	4	-	-	-	-	1	1	-	-	-
Kans.	5	5	-	-	-	-	-	-	-	-	-
S. ATLANTIC	83	67	-	-	5	4	25	11	-	-	-
Del.	2	1	U	-	-	U	-	-	U	-	-
Md.	9	9	-	-	2	1	22	8	-	-	-
D.C.	1	2	-	-	-	2	2	-	-	-	-
Va.	4	4	-	-	1	-	-	-	-	-	-
W. Va.	1	3	-	-	-	-	-	-	-	-	-
N.C.	16	10	-	-	-	-	-	-	-	-	-
S.C.	18	13	-	-	1	1	1	-	-	-	-
Ga.	16	20	-	-	1	-	-	1	-	-	-
Fla.	16	5	-	-	-	-	-	2	-	-	-
E.S. CENTRAL	36	39	2	6	3	2	12	7	-	-	-
Ky.	5	6	-	-	-	-	-	5	-	-	-
Tenn.	16	9	1	2	-	-	3	1	-	-	-
Ala.	10	15	1	2	3	1	5	1	-	-	-
Miss.	5	9	-	2	-	1	4	-	-	-	N
W.S. CENTRAL	16	54	-	3	3	1	4	2	-	-	-
Ark.	5	6	-	-	-	1	3	1	-	-	-
La.	1	10	-	-	3	-	-	1	-	-	-
Okla.	2	3	-	-	-	-	-	-	-	-	-
Tex.	8	35	-	3	-	-	1	-	-	-	-
MOUNTAIN	23	38	-	2	2	8	113	22	-	-	-
Mont.	1	1	-	-	-	-	-	-	-	-	-
Idaho	2	3	-	-	-	2	74	-	-	-	-
Wyo.	-	-	-	-	-	-	3	-	-	-	-
Colo.	2	4	-	1	-	5	26	-	-	-	-
N. Mex.	6	9	N	N	N	1	6	8	-	-	-
Ariz.	8	13	-	-	-	-	4	3	-	-	-
Utah	2	3	-	1	-	-	-	-	-	-	-
Nev.	2	5	-	-	2	-	-	11	-	-	-
PACIFIC	92	109	4	9	21	15	77	33	-	-	9
Wash.	9	6	2	2	2	9	13	5	-	-	-
Oreg.	27	20	-	-	-	-	3	13	-	-	-
Calif.	56	79	2	3	13	5	59	13	-	-	9
Alaska	-	2	-	-	1	-	1	-	-	-	-
Hawaii	-	2	-	4	5	1	1	2	-	-	-
Guam	-	1	U	-	1	U	-	-	U	-	-
P.R.	-	-	U	-	-	U	-	-	U	-	-
V.I.	-	-	U	-	-	U	-	-	U	-	-
Amer. Samoa	-	-	U	-	-	U	-	-	U	-	-
C.N.M.I.	-	-	U	-	-	U	-	-	U	-	-

N: Not notifiable U: Unavailable -: no reported cases

TABLE IV. Deaths in 122 U.S. cities,* week ending February 8, 1997 (6th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	>65	45-64	25-44	1-24	<1	
NEW ENGLAND	533	376	94	47	9	6	53
Boston, Mass.	152	98	26	20	4	4	21
Bridgeport, Conn.	41	35	4	1	1	-	4
Cambridge, Mass.	17	14	2	1	-	-	1
Fall River, Mass.	26	25	1	-	-	-	3
Hartford, Conn.	U	U	U	U	U	U	U
Lowell, Mass.	27	20	5	2	-	-	2
Lynn, Mass.	17	10	4	3	-	-	-
New Bedford, Mass.	27	20	6	1	-	-	2
New Haven, Conn.	24	17	3	3	1	-	3
Providence, R.I.	83	56	19	6	1	1	2
Somerville, Mass.	6	3	3	-	-	-	-
Springfield, Mass.	34	24	7	1	2	-	7
Waterbury, Conn.	29	20	8	1	-	-	1
Worcester, Mass.	50	34	6	8	-	1	7
MID. ATLANTIC	2,427	1,734	428	186	40	39	139
Albany, N.Y.	48	36	8	4	-	-	3
Allentown, Pa.	23	21	2	-	-	-	-
Buffalo, N.Y.	58	44	10	2	1	1	4
Camden, N.J.	34	14	14	3	1	2	2
Elizabeth, N.J.	17	15	2	-	-	-	1
Erie, Pa.§	35	29	2	3	1	-	1
Jersey City, N.J.	66	35	17	10	-	4	4
New York City, N.Y.	1,306	930	228	107	24	17	55
Newark, N.J.	42	17	15	6	1	3	2
Paterson, N.J.	10	7	3	-	-	-	1
Philadelphia, Pa.	300	206	55	26	5	8	19
Pittsburgh, Pa.§	92	66	17	7	2	-	13
Reading, Pa.	12	10	2	-	-	-	-
Rochester, N.Y.	138	104	23	7	3	1	11
Schenectady, N.Y.	24	19	3	2	-	-	1
Scranton, Pa.§	47	42	3	1	-	1	3
Syracuse, N.Y.	109	86	16	5	2	-	12
Trenton, N.J.	48	38	7	1	-	2	5
Utica, N.Y.	18	15	1	2	-	-	2
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	2,203	1,570	374	164	53	41	151
Akron, Ohio	53	43	5	3	1	1	1
Canton, Ohio	43	33	6	2	2	-	5
Chicago, Ill.	362	231	80	33	7	10	37
Cincinnati, Ohio	151	113	22	9	4	3	19
Cleveland, Ohio	170	118	36	9	4	3	5
Columbus, Ohio	206	158	28	11	2	7	17
Dayton, Ohio	120	87	20	5	5	3	17
Detroit, Mich.	217	140	39	27	10	1	5
Evansville, Ind.	63	47	10	6	-	-	-
Fort Wayne, Ind.	53	45	4	3	1	-	5
Gary, Ind.	16	9	2	2	3	-	-
Grand Rapids, Mich.	58	44	9	3	1	1	2
Indianapolis, Ind.	201	136	40	18	4	3	-
Lansing, Mich.	53	36	7	8	-	2	9
Milwaukee, Wis.	121	86	25	7	1	2	11
Peoria, Ill.	45	36	4	2	-	3	5
Rockford, Ill.	49	37	5	5	2	-	5
South Bend, Ind.	31	21	2	3	4	1	3
Toledo, Ohio	133	104	21	6	1	1	5
Youngstown, Ohio	58	46	9	2	1	-	-
W.N. CENTRAL	866	644	130	54	13	18	84
Des Moines, Iowa	154	118	21	9	3	3	18
Duluth, Minn.	U	U	U	U	U	U	U
Kansas City, Kans.	19	12	5	2	-	-	-
Kansas City, Mo.	101	69	18	4	1	2	10
Lincoln, Nebr.	29	25	2	2	-	-	2
Minneapolis, Minn.	285	217	39	15	5	9	27
Omaha, Nebr.	124	93	20	6	2	3	11
St. Louis, Mo.	U	U	U	U	U	U	U
St. Paul, Minn.	80	55	17	7	-	1	11
Wichita, Kans.	74	55	8	9	2	-	5
S. ATLANTIC	1,472	895	290	155	41	90	95
Atlanta, Ga.	347	163	71	40	5	68	11
Baltimore, Md.	127	79	32	11	4	1	18
Charlotte, N.C.	68	48	11	5	2	2	3
Jacksonville, Fla.	172	117	36	11	3	4	4
Miami, Fla.	109	62	22	19	4	2	-
Norfolk, Va.	52	37	9	3	2	1	5
Richmond, Va.	85	53	16	11	5	-	7
Savannah, Ga.	73	43	13	6	7	4	13
St. Petersburg, Fla.	66	54	8	2	1	1	3
Tampa, Fla.	193	135	31	25	1	1	24
Washington, D.C.	164	94	40	17	7	6	7
Wilmington, Del.	16	10	1	5	-	-	-
E.S. CENTRAL	734	481	164	49	16	21	84
Birmingham, Ala.	57	38	11	3	2	2	-
Chattanooga, Tenn.	79	58	17	3	1	-	7
Knoxville, Tenn.	105	69	30	3	1	2	25
Lexington, Ky.	52	35	13	2	-	2	6
Memphis, Tenn.	163	92	42	18	5	6	19
Mobile, Ala.	39	31	6	2	-	-	-
Montgomery, Ala.	84	58	16	7	2	1	5
Nashville, Tenn.	155	100	29	11	5	8	22
W.S. CENTRAL	1,586	1,045	321	151	32	36	111
Austin, Tex.	80	44	21	10	3	2	6
Baton Rouge, La.	51	33	8	8	1	1	2
Corpus Christi, Tex.	56	40	7	8	1	-	-
Dallas, Tex.	200	129	40	20	3	8	11
El Paso, Tex.	77	48	19	7	1	2	3
Ft. Worth, Tex.	128	74	33	14	1	6	5
Houston, Tex.	433	269	103	47	7	7	30
Little Rock, Ark.	82	50	18	5	4	5	5
New Orleans, La.	U	U	U	U	U	U	U
San Antonio, Tex	279	201	48	20	6	3	32
Shreveport, La.	66	47	10	7	1	1	8
Tulsa, Okla.	134	110	14	5	4	1	9
MOUNTAIN	862	604	143	78	15	22	99
Albuquerque, N.M.	85	61	14	8	1	1	7
Boise, Idaho	29	25	4	-	-	-	6
Colo. Springs, Colo.	44	27	10	5	1	1	5
Denver, Colo.	116	76	19	11	1	9	16
Las Vegas, Nev.	144	107	26	8	1	2	17
Ogden, Utah	30	22	5	1	1	1	3
Phoenix, Ariz.	154	98	29	20	4	3	18
Pueblo, Colo.	U	U	U	U	U	U	U
Salt Lake City, Utah	98	67	13	10	5	3	12
Tucson, Ariz.	162	121	23	15	1	2	15
PACIFIC	1,810	1,307	297	126	39	41	177
Berkeley, Calif.	15	11	3	-	1	-	5
Fresno, Calif.	67	46	10	5	-	6	6
Glendale, Calif.	31	23	7	-	1	-	3
Honolulu, Hawaii	87	62	12	8	3	2	6
Long Beach, Calif.	90	69	12	4	-	5	15
Los Angeles, Calif.	475	333	81	37	13	11	23
Pasadena, Calif.	35	24	6	3	2	-	5
Portland, Oreg.	166	115	32	12	3	4	12
Sacramento, Calif.	U	U	U	U	U	U	U
San Diego, Calif.	139	95	28	10	5	1	25
San Francisco, Calif.	155	105	30	17	2	1	24
San Jose, Calif.	231	188	25	11	2	5	31
Santa Cruz, Calif.	24	21	1	1	1	-	6
Seattle, Wash.	126	88	25	6	4	3	3
Spokane, Wash.	64	52	8	3	-	1	5
Tacoma, Wash.	105	75	17	9	2	2	8
TOTAL	12,493¶	8,656	2,241	1,010	258	314	993

U: Unavailable -: no reported cases

*Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

†Pneumonia and influenza.

§Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶Total includes unknown ages.

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